

Exhibit Number	Document Description	Document Date	Bates Number	Deposition	Deposition Exhibit Number	Objection
Wendy K. Tam Cho, Ph.D. Curriculum Vitae				Wendy K. Tam Cho, Ph.D.	Exhibit 1	
Wendy K. Tam Cho, Ph.D. Expert Report (10/5/2018)	October 5, 2018			Wendy K. Tam Cho, Ph.D.	Exhibit 2	
Wendy K. Tam Cho, Ph.D. Rebuttal Expert Report (11/26/2018)	November 26, 2018			Wendy K. Tam Cho, Ph.D.	Exhibit 3	
Confidential Source Code				Wendy K. Tam Cho, Ph.D.	Exhibit 4	
10/12/18 - Letter from E. Zhang to P. Lewis, et al. Re: Ohio A. Philip Randolph Institute v. Smith	October 12, 2018			Wendy K. Tam Cho, Ph.D.	Exhibit 5	
Dr. Cho's Run Output File				Wendy K. Tam Cho, Ph.D.	Exhibit 6	
Wendy K. Tam Cho, Ph.D. Supplemental Expert Report (12.28.18)	December 28, 2018					
10/9/2018 - Letter from N. Subbedar to P. Lewis, et al. Re: Ohio A. Philip Randolph Institute v. Smith	October 9, 2018					
Native of Dr. Cho's Run Output File- File Name "run1.txt"						
Errata to Wendy K. Tam Cho, Ph.D. Expert Report (10/18/2018)	October 18, 2018					
Declaration of William S. Cooper (10/5/2018) (also Niven Exhibit 10)	October 5, 2018			William S. Cooper	Exhibit 1	
Brennan Center for Justice Overview: Ohio Redistricting Reform Proposal	February 2018			William S. Cooper	Exhibit 2	
Ohio U.S. House Zero Deviation 2012 Plan				William S. Cooper	Exhibit 3	
Ohio U.S. House Proposed Remedial Plan				William S. Cooper	Exhibit 4	
Exhibits A - Documents Re: William S. Cooper Declaration				William S. Cooper	Exhibit 5	
Errata to Declaration of William S. Cooper (11/30/2018)	November 30, 2018			William S. Cooper	Exhibit 6	
Ohio U.S. House Proposed Remedial Plan 11/30/2018 Mod	November 30, 2018			William S. Cooper	Exhibit 7	
Supplemental Declaration of William S. Cooper (11/26/2018)	November 26, 2018			William S. Cooper	Exhibit 8	
Second Supplemental Declaration of William S. Cooper (11/27/2018)	November 27, 2018			William S. Cooper	Exhibit 9	
Ohio U.S. House Zero Deviation Hypothetical Plan 1A				William S. Cooper	Exhibit 10	
Ohio U.S. House Zero Deviation Hypothetical Plan 2A				William S. Cooper	Exhibit 11	
Demonstrative Rel. 2012, 2014, 2016 AVG				William S. Cooper	Exhibit 12	
Third Supplemental Declaration of William S. Cooper (12.28.18)	December 28, 2018					
Lisa Handley Expert Report (10/5/2018)	October 5, 2018			Lisa Handley	Exhibit 1	
Lisa Handley Expert Report (U.S. v. City of Euclid) (2/1/2007)	February 1, 2007			Lisa Handley	Exhibit 2	
Lisa Handley Rebuttal Expert Report (U.S. v. City of Euclid) (5/10/2007)	May 10, 2007			Lisa Handley	Exhibit 3	
Lisa Handley Expert Report (U.S. v. Euclid City School District) (3/1/2009)	March 1, 2009			Lisa Handley	Exhibit 4	
Lisa Handley Rebuttal Expert Report (U.S. v. Euclid City School District) (4/15/2009) "Declaration of Dr. Lisa R. Handley"	April 15, 2009			Lisa Handley	Exhibit 5	
Analysis of 2009 Election for Euclid City School Board District Board of Education	March 5, 2010			Lisa Handley	Exhibit 6	
Rebuttal to Engstrom Report (U.S. v. Euclid City School District) (7/22/2010) "Declaration of D. Lisa R. Handley"	July 22, 2010			Lisa Handley	Exhibit 7	
2009 Paper - Legislative Studies Quarterly "Has the Voting Rights Act Outlived its Usefulness? In a Word, "No"" - by Lublin, Brunell, Grofman, Handley	November 1, 2009			Lisa Handley	Exhibit 8	
David H. Niven, Ph.D. Report (10/5/2018) - Dividing Neighbors and Diminishing Voices: An Analysis of Ohio's Congressional Districts	October 5, 2018		SOS_001054	David Niven, Ph.D.	Exhibit 1	
David H. Niven, Ph.D. Curriculum Vitae	October 2018			David Niven, Ph.D.	Exhibit 2	
David H. Niven, Ph.D. Response to Thornton and Brunell (11/26/2018)	November 26, 2018			David Niven, Ph.D.	Exhibit 3	
Rebuttal Expert Report of Janet R. Thornton, Ph.D. (11/12/2018)	November 12, 2018			David Niven, Ph.D.	Exhibit 5	
Geographic Terms and Concepts - Census Tract [www.census.gov]	December 18, 2018			David Niven, Ph.D.	Exhibit 6	
Niven Save File Exports				David Niven, Ph.D.	Exhibit 7	
Ohio Congressional District Map, 2002-2012				David Niven, Ph.D.	Exhibit 8	
Ohio Congressional District Map, 2012-2022				David Niven, Ph.D.	Exhibit 9	
daviddriven.com Website Printout	December 18, 2018			David Niven, Ph.D.	Exhibit 11	
HarperCollins Publishing Website - Printout Re: David Niven	December 19, 2018			David Niven, Ph.D.	Exhibit 12	
Niven Tweets, 12/12/2017	December 12, 2017			David Niven, Ph.D.	Exhibit 13	
Niven Tweets, 11/16/2017	November 16, 2017			David Niven, Ph.D.	Exhibit 14	
Niven Tweets, 3/6/2018	March 6, 2018			David Niven, Ph.D.	Exhibit 15	
Niven Tweets, 11/14/2018	November 14, 2018			David Niven, Ph.D.	Exhibit 16	
Niven Tweets, 6/13/2018	June 13, 2018			David Niven, Ph.D.	Exhibit 17	
Christopher Warshaw Expert Report (10/5/2018) "An Evaluation of the Partisan Bias in Ohio's 2011 Congressional Districting Plan and its Effects on Representation in Congress"	October 5, 2018			Christopher Warshaw	Exhibit 1	
Figure 1 - Ohio Partisan Distribution 2004 to 2010				Christopher Warshaw	Exhibit 2	
Figure 7 Ohio Partisan Distribution 2012 to 2016				Christopher Warshaw	Exhibit 3	
Essay by Wendy Cho "Measuring Partisan Fairness: How Well Does the Efficiency Gap Guard Against Sophisticated As Well As Simple Minded Modes of Partisan Discrimination"				Christopher Warshaw	Exhibit 4	
Figure 5 Cleveland Area				Christopher Warshaw	Exhibit 5	
Christopher Warshaw Rebuttal Report (11/26/2018)				Christopher Warshaw	Exhibit 6	
Christopher Warshaw Expert Report (11/27/2017) in League of Women Voters of Pennsylvania v. the Commonwealth of Pennsylvania, 159 MM 2017 (Pa.)	November 26, 2018			Christopher Warshaw	Exhibit 7	
Christopher Warshaw Expert Report (6/1/2018) Michigan case in League of Women Voters of Michigan v. Johnson, No. 2:2017cv14148 (E.D. Mich.)	June 1, 2018			Christopher Warshaw	Exhibit 8	
2017 Article of Gregory Warrington "Quantifying gerrymandering using the vote distribution" (5/15/2017)	May 15, 2017			Christopher Warshaw	Exhibit 9	
U.S. House of Representatives Roll Call Votes 114th Congress - 1st Session (2015)	November 29, 2018			Christopher Warshaw	Exhibit 10	
VoteView.com - Lindsay Graham Entry				Christopher Warshaw	Exhibit 11	
Pew Research Center Article "From the very start, sharp partisan divisions over Obamacare" (6/25/2015)	June 25, 2015			Christopher Warshaw	Exhibit 12	
Christopher Warshaw Supplemental Expert Report (12.28.18)	December 28, 2018			Christopher Warshaw		
Expert Report of Thomas Brunell (11/12/2018) (also Niven Exhibit 4)	November 12, 2018			Thomas Brunell	Exhibit 1	
July 20, 2011 Columbus Regional Hearing Testimony- File Name "2011-07-20 Columbus Regional Hearing Testimony.pdf"	July 20, 2011	DIROSSI_0000151-201				
House Bill 319 Rep. Matt Huffman Sponsor Testimony- File Name "2011-09-13 Huffman Sponsor Testimony.docx"		LENZO_000041-42				
H.B. 369 Rep. Matt Huffman Sponsor Testimony				Matthew Huffman	Exhibit 19	
Ohio House Republican Caucus, How the Problem Started- File Name "MCGREGOR000001-MCGREGOR000007.pdf"		MCGREGOR000002-7		Troy Judy	Exhibit 30	
OHIO House of Representatives JOURNAL Thursday, September 15, 2011, available at http://archives.legislature.state.oh.us/JournalText129/HJ-09-15-11.pdf	September 15, 2011					
OHIO House of Representatives JOURNAL Wednesday, September 21, 2011, available at http://archives.legislature.state.oh.us/JournalText129/HJ-09-21-11.pdf	September 21, 2011					
OHIO House of Representatives JOURNAL CORRECTED VERSION Wednesday, December 14, 2011, available at http://archives.legislature.state.oh.us/JournalText129/HJ-12-14-11.pdf	December 14, 2011					
OHIO SENATE JOURNAL Wednesday, September 21, 2011, available at http://archives.legislature.state.oh.us/JournalText129/SJ-09-21-11.pdf	September 21, 2011					
OHIO SENATE JOURNAL Wednesday, December 14, 2011, available at http://archives.legislature.state.oh.us/JournalText129/SJ-12-14-11.pdf	December 14, 2011					
Screenshot of Original Map Produced in Maptitude [Original_CD01] and associated native files		GLASSBURN_0020		Christopher Glassburn	Exhibit 21	
Maptitude screenshot - HB 369 Map Revised December 14th.map - 2010 Final Census Blocks (Ohio)(Template) [Map Revised December 14th]_001 and associated native files		BLESSING0012635		Heather Blessing	Exhibit 13	
Demonstrative Exhibit - Maptitude Comparison of 319 to 369						
File Name "FINAL HB 319.map" and associated files		BLESSING0000003170				
File Name "HB 319 As Enacted - Congressional Districts.map" and associated files		BLESSING0000008229				
File Name "HB 369 as Enacted FINAL.map" and associated files		BLESSING0000002450				
File Name "HB 369 Map Revised December 14th.map" and associated files		BLESSING0000007750				
Christopher Glassburn Production: Memorex USB 139 Original.map						
Christopher Glassburn Production: Memorex USB 1 OFFICIAL 369 ADOPTED FINAL.map						
Compromise Proposal to Draw Fair Congressional Districts		SMC-KM-000363-372		Matthew Szollosi	Exhibit 5	
11/2/2011 - E-Mail chain from McCarthy to Glassburn and Budish	November 2, 2011	SMC-KM-000263, 409-413		Matthew Szollosi	Exhibit 6	
11/23/2011 - E-Mail from McCarthy to Budish	November 23, 2011	SMC-KM-000184, 167-168		Matthew Szollosi	Exhibit 8	
PowerPoint - Summary of Compromise Efforts to Resolve Redistricting Impasse		SMC-KM-000155-165		Matthew Szollosi	Exhibit 9	
11/18/2011 - E-mail chain from McCarthy to Judy	November 18, 2011	JUDY_0001655		Matthew Szollosi	Exhibit 18	
12/3/2011 - E-Mail chain from Cherry to McCarthy, Hoyt and Others	December 3, 2011	SMC-AH-000067-68		Matthew Szollosi	Exhibit 22	
7/11/2011 - E-Mail chain from Bonier to Rount, Burke, Hoyt	July 11, 2011	SMC-RR-029803		Randall Rount	Exhibit 3	
7/15/2011 - E-Mail Rount to Hoyt	July 15, 2011	SMC-RR-031375-31378		Randall Rount	Exhibit 4	
7/18/2011 - E-Mail chain from Smoot to Rount	July 18, 2011	SMC-RR-029793		Randall Rount	Exhibit 5	
7/19/2011 - E-Mail chain from Rount to Hoyt	July 19, 2011	SMC-RR-031366-31368		Randall Rount	Exhibit 6	
7/21/2011 - E-Mail chain from Peterson to Bonier, Rount, Burke and Hoyt	July 21, 2011	SMC-RR-029095-29096		Randall Rount	Exhibit 7	
9/8/2011 - E-Mail from Rount to Pavan	September 8, 2011	SMC-RR-028740-28742		Randall Rount	Exhibit 9	
11/17/2011 - E-Mail from Rount to McCarthy, Rowe and Cherry	November 17, 2011	SMC-KM-000204, 146-147		Randall Rount	Exhibit 12	
10/31/2011 - E-Mail from Rount to Hoyt	October 31, 2011	SMC-AH-000137-138		Randall Rount	Exhibit 15	

Exhibit Number	Document Description	Document Date	Bates Number	Deposition	Deposition Exhibit Number	Objection
	11/1/2011 Maps, E-Mail, Spreadsheet	November 1, 2011	SMC-RR-000447, 451, 452, 10785, 28680, 28681	Randall Routh	Exhibit 16	
	11/3/2011 - Email from Routh to Hoyt and Others	November 3, 2011	SMC-AH-000267-000303	Randall Routh	Exhibit 17	
	11/3/2011 - E-Mail from Routh to Hoyt and Others	November 3, 2011	SMC-AH-000241-266	Randall Routh	Exhibit 18	
	11/3/2011 - E-Mail from Routh to Hoyt and Others	November 3, 2011	SMC-AH-000220-240	Randall Routh	Exhibit 19	
	11/17/2011 - E-Mail from Hoyt to Routh and Others	November 17, 2011	SMC-RR-028279-28280	Randall Routh	Exhibit 20	
	12/9/2011 - E-Mail from Hoyt to Hoyt, Rowe	December 9, 2011	SMC-AH-000437-438	Randall Routh	Exhibit 21	
	12/14/2011 - Maps, E-Mail chain	December 14, 2011	SMC-RR-016520, 16522, 16673-16675	Randall Routh	Exhibit 24	
	12/14/2011 - E-Mail chain from Routh to Peterson	December 14, 2011	SMC-RR-028384-28385	Randall Routh	Exhibit 25	
	12/22/2011 - E-Mail chain from Routh to Hoyt, Cherry, McCarthy	December 22, 2011	SMC-AH-000341-346	Randall Routh	Exhibit 27	
	OAKS Voucher Worksheet, FY 12, Voucher ID: 00004784		LENZO 0002404-2415	Keary McCarthy	Exhibit 3	
	Overview, Objectives, Project Overview		SMC-KM-000436-438	Keary McCarthy	Exhibit 5	
	7/25/2011 - E-Mail chain from Glassburn to McCarthy and Cherry	July 25, 2011	SMC-KM-000038	Keary McCarthy	Exhibit 7	
	8/9/2011 - E-Mail from McCarthy to Budish and Cherry		SMC-KM-000068	Keary McCarthy	Exhibit 8	
	8/5/2011 - E-Mail from McCarthy to Hoyt		SMC-KM-000067	Keary McCarthy	Exhibit 9	
	10/16/2011 - E-Mail from Cherry to McCarthy and Brown	October 16, 2011	SMC-KM-000226, 399	Keary McCarthy	Exhibit 13	
	Compromise Proposal to Draw Fair Congressional Districts		SMC-KM-000363-372	Keary McCarthy	Exhibit 15	
	11/2/2011 - E-Mail from McCarthy to Glassburn and Budish	November 2, 2011	SMC-KM-000263, 174-178	Keary McCarthy	Exhibit 16	
	11/10/2011 - E-Mail from McCarthy to Glassburn	November 10, 2011	SMC-KM-000195, 171-172	Keary McCarthy	Exhibit 17	
	11/14/2011 - E-Mail from Glassburn to McCarthy	November 14, 2011	SMC-KM-000291, 450, 331, 332	Keary McCarthy	Exhibit 18	
	PowerPoint - Summary of Compromise Efforts		SMC-KM-000155-165	Keary McCarthy	Exhibit 20	
	12/15/2011 - E-Mail chain from Routh to McCarthy and Hoyt	December 15, 2011	SMC-AH-000335-336	Keary McCarthy	Exhibit 24	
	7/16/2018 Letter to Ben Guess from K. McCarthy, Heather Taylor-Miesle	July 16, 2018		Keary McCarthy	Exhibit 25	
	7/5/2011 - E-Mail from Glassburn to M. Keary	July 5, 2011	SMC-KM-000029-30	Christopher Glassburn	Exhibit 5	
	2010 Ohio Common and Unified Redistricting Database Technical Documentation, V3_08_10_2011.pdf		CTRL000012608	Christopher Glassburn	Exhibit 7	
	8/31/2011 - E-Mail from Glassburn to M. Keary, S. Cherry	August 31, 2011	SMC-KM-000015-16	Christopher Glassburn	Exhibit 8	
	9/6/2011 - E-Mail chain from T. Borier to R. Routh, C. Glassburn and Others	September 6, 2011	SMC-RR-022994-29995	Christopher Glassburn	Exhibit 9	
	9/16/2011 - E-Mail from S. Cherry to Glassburn	September 16, 2011	SMC-KM-000251-255, 484	Christopher Glassburn	Exhibit 11	
	Compromise Proposal to Draw Fair Congressional Districts		SMC-KM-000363-372	Christopher Glassburn	Exhibit 12	
	11/2/2011 - E-Mail from K. McCarthy to Glassburn	November 2, 2011	SMC-KM-000263, 409-413	Christopher Glassburn	Exhibit 13	
	Major Map Files from 2010-2011		CTRL0000011317	Christopher Glassburn	Exhibit 14	
	Listing of files produced in a folder called Memorex USB\Offers			Christopher Glassburn	Exhibit 15	
	Screenshot - Nov 2 Dmap - Block Split-Bicok-Block Group-Tract BOE County			Christopher Glassburn	Exhibit 16	
	11/10/2011 - E-Mail from K. McCarthy to Glassburn	November 10, 2011	SMC-KM-000195, 171-172	Christopher Glassburn	Exhibit 17	
	11/14/2011 - E-Mail from Glassburn to K. McCarthy	November 14, 2011	SMC-KM-000291, 450, 331, 332	Christopher Glassburn	Exhibit 18	
	Summary of Compromise Efforts to Resolve Redistricting Impasse...		SMC-KM-000155-165	Christopher Glassburn	Exhibit 19	
	11/23/2011 - E-Mail from K. McCarthy to Glassburn	November 23, 2011	SMC-KM-000278, 169	Christopher Glassburn	Exhibit 20	
	Screen Shot ADOPTED FINAL.map [OFFICIAL_ADOPTED FINAL_CD16]_01-03		GLASSBURN 0051	Christopher Glassburn	Exhibit 22	